

REMARKS

The Office Action mailed August 7, 2003, has been received and reviewed. Claims 1 through 15 are currently pending in the application, of which claims 1 through 11 are currently under examination. Claims 12 through 15 are withdrawn from consideration as being drawn to a non-elected invention. Applicants herein acknowledge the restriction requirement in the above-referenced application, and affirm the election to prosecute the claims of Group I, claims 1 through 11, without further traverse.

Claims 1 through 3, and 7 through 11 stand rejected. Claims 4 through 6 have been objected to as being dependent upon rejected base claims, but the indication of allowable subject matter in such claims is noted with appreciation.

Per this response, Applicants have cancelled claims 12 through 15, amended claim 1, entered new claims 16 through 18, and respectfully request reconsideration of the application as amended herein.

35 U.S.C. § 102(b) Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 4,974,053 to Kinoshita et al.

Claims 1 through 3, and 7 through 10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kinoshita et al. (U.S. Patent No. 4,974,053). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 1, as amended herein, is directed to a method of fabricating an integrated circuit package. The method comprises: providing a semiconductor die having a plurality of conductive pads; forming a leadframe including at least two conductors, each conductor of the at least two conductors having a first end and a second end and a generally arcuate-shaped portion between the first and second ends, *at least a portion of each generally*

arcuate-shaped portion exhibiting a constant radius; configuring and positioning the at least two conductors such that line spacing between the generally arcuate-shaped portion of each of the at least two conductors is constant; electrically coupling the first ends of each of the at least two conductors with at least one of the plurality of conductive pads; and encapsulating the semiconductor die and at least a portion of the at least two conductors with an insulating material.

The Examiner cites Kinoshita as disclosing method of fabricating an integrated circuit package wherein the method includes: providing a semiconductor die (1) having a plurality of conductive pads (6a-6j); forming at least two conductors (7), each conductor of the at least two conductors having a first end and a second end and a generally arcuate-shaped portion between the first and second ends, at least a portion of each generally arcuate-shaped exhibiting a constant radius; configuring and positioning the at least two conductors such that line spacing between the generally arcuate-shaped portion of each of the at least two conductors is constant (FIG. 9B); electrically coupling the first ends of each of the at least two conductors with at least one of the plurality of conductive pads (by wire bonds 8); and encapsulating the semiconductor die and at least a portion of the at least two conductors with an insulating material. Applicants respectfully disagree.

Applicants submit that Kinoshita fails to teach forming a leadframe including at least two conductors, each conductor having a generally arcuate-shaped portion between first and second ends thereof, wherein *at least a portion of each generally arcuate-shaped portion exhibits a constant radius*. Rather, the conductors (7) of Kinoshita each include a plurality of straight segments angularly joined with adjacent segments. In other words, no portion of the conductors exhibits a constant *radius*. As such, Applicants submit that claim 1 is clearly not anticipated by Kinoshita.

Applicants further submit that claims 2, 4 and 7 through 10 are allowable over Kinoshita as being dependent from an allowable base claim as well as for the additional patentable subject matter introduced thereby.

With respect to claim 8, Applicants submit that Kinoshita fails to teach forming at least one conductor of the at least two conductors such that the generally arcuate-shaped portion exhibits a constant radius throughout an entire arc length thereof. As noted above, the conductors of Kinoshita fail to exhibit a constant radius through any portion thereof.

With respect to claim 9, Kinoshita fails to teach configuring and positioning the at least two conductors such that line spacing between the at least two conductors is constant from the respective first ends to the respective second ends of the at least two conductors. Rather, as shown by Kinoshita in FIG. 9B, the conductors (7) clearly exhibit a first line spacing therebetween at a first end (i.e., where the conductors are extending downwardly when viewing FIG. 9B) and a second spacing therebetween at their second respective ends (i.e., at their ends which are adjacent the corresponding bond pads 5f-5j). Thus, the line spacing does not remain constant from the first ends of Kinoshita's conductors to the second ends thereof. Furthermore, Applicant fails to find any teaching within the written description of Kinoshita regarding constant line spacing between the first and second ends of such conductors.

Applicants, therefore, respectfully request reconsideration and allowance of claims 1 through 3 and 7 through 10.

Anticipation Rejection Based on U.S. Patent No. 5,200,362 to Lin et al.

Claims 1 through 3, and 7 through 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Lin et al. (U.S. Patent No. 5,200,362). Applicants respectfully traverse this rejection, as hereinafter set forth.

Independent claim 1, as amended herein, is directed to a method of fabricating an integrated circuit package. The method comprises: providing a semiconductor die having a plurality of conductive pads; *forming a leadframe* including at least two conductors, each conductor of the at least two conductors having a first end and a second end and a generally arcuate-shaped portion between the first and second ends, at least a portion of each generally arcuate-shaped portion exhibiting a constant radius; configuring and positioning the at least two conductors such that line spacing between the generally arcuate-shaped portion of each of the at least two conductors is constant; electrically coupling the first ends of each of the at least two

conductors with at least one of the plurality of conductive pads; and encapsulating the semiconductor die and at least a portion of the at least two conductors with an insulating material.

The Examiner cites Lin as disclosing a method of fabricating an integrated circuit package wherein the method comprises: providing a semiconductor die (15) which, inherently, has a plurality of conductive pads; forming at least two conductors (13) each conductor of the at least two conductors having a first end and a second end and a generally arcuate-shaped portion exhibiting a constant radius; configuring and positioning the at least two conductors such that line spacing between the generally arcuate shaped portion of each of the at least two conductors is constant (referring to FIG. 8); electrically coupling the first ends (16) of each of the at least two conductors with at least one of the plurality of conductive pads (via wire bonds 18); and encapsulating the semiconductor die and at least a portion of the at least two conductors with an insulating material. The Examiner further states that FIG. 8 shows all of the limitations of claims 2, 3 and 7-11.

Applicants note that the semiconductor device of Lin is a resin encapsulated device which is fabricated in a “thin format.” (Col. 1, lines 14 and 15). As such, the semiconductor device is formed using a sheet of transfer film having a pattern of conductive traces formed on one side of the film. The conductive traces may be formed from “foil of conductive material such as copper [which] is laminated to the transfer film and is subsequently patterned using conventional photolithographic patterning and etching.” (Col. 2, lines 34-38). Lin states that an advantage of such construction includes a device wherein “[n]o thick device ‘header’ or *leadframe* is necessary for mounting the device die, and so the thickness ‘t’ is minimized.” (Col. 3, lines 56-58, emphasis added; see also FIG. 5). Thus, the teachings of Lin are in direct contrast with claim 1 of the presently claimed invention which requires the act of *forming a leadframe*.

Applicants, therefore, submit that claim 1 is clearly not anticipated by Lin. Applicants further submit that claims 2, 3 and 7 through 11 are also allowable at least by virtue of their dependency from an allowable base claim.

Applicants respectfully request reconsideration and allowance of claims 1 through 3 and 7 through 11.

Objections to Claims 4 through 6/Allowable Subject Matter

Claims 4 through 6 stand objected to as being dependent upon rejected base claims, but are indicated to contain allowable subject matter and would be allowable if placed in appropriate independent form.

Applicants note that new claims 16 through 18 reflect the subject matter previously set forth in claims 4 through 6 (i.e., prior to entry of the amendments set forth herein). Applicants submit that claims 16 through 18 are in condition for allowance and respectfully request the same.

ENTRY OF AMENDMENTS

The amendment to claim 1 above should be entered by the Examiner because the amendment is supported by the as-filed specification and drawings and does not add any new matter to the application. Further, the amendment does not raise new issues or require a further search.

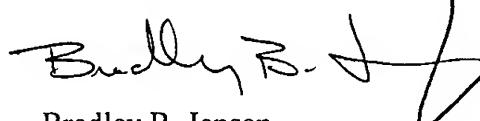
ENTRY OF NEW CLAIMS

New claims 16 through 18 should be entered by the Examiner because the new claims are supported by the as-filed specification and drawings and do not add any new matter to the application. Further, the new claims do not raise new issues or require a further search.

CONCLUSION

Claims 1 through 11 and 16 through 18 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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